

## Remarks

Reconsideration and allowance of the present patent application based on the foregoing remarks are respectfully requested.

1. Pending Claims.

Claims 9-14, 17-18 & 21 are pending in the Application and stand rejected. None of the claims have been amended.

2. Rejection of Claims 9-10 Under §103(a).

Claims 9-10 stand rejected over Mamontov '961 (SU 923961) in view of Jasim '528 (U.S. Patent No. 5,716,528). Applicant respectfully traverses this rejection.

Applicant is grateful for the Examiner's indication that Mamontov '961 does not teach oxidizing the aqueous liquid. Jasim '528 discloses a peroxide water treatment process in the presence of a catalytic amount of ferrous ions (*Fenton's reagent*). The presence of *Fenton's reagent* increases the amount of reaction byproducts, especially nitrate ions, and therefore inhibits formation of nitrogen gas. That is, the presence of *Fenton's reagent* as recited in Jasim '528 if used with Mamontov '961 would inhibits the desired removal of organic nitrogen from liquids containing organic-based nitrogen contaminants. Therefore, since it is counterproductive to the desired result, one of ordinary skill in the art would not combine Mamontov '961 with Jasim '528.

As such, claim 9 is indeed patentable over the asserted references. And, because claim 10 depends from claim 9, claim 9 is allowable by virtue of dependency as well as for its additional recitations. Applicant respectfully requests that this rejection be withdrawn.

3. Rejection of Claims 13, 14, 17 and 18 Under §103(a).

Claims 13, 14, 17 and 18 Shiota '181 (U.S. Patent Publication No. 2004/0104181 A1) in view of Ding '283 (U.S. Patent No. 6,720,283) and Jasim '528. Applicant respectfully traverses this rejection.

Shiota '181 discloses the use of catalyst formed from activated carbon in combination with a pair of metals. In the previous response, we noted that Shiota '181 teaches away from the use of activated carbon as a catalyst. Paragraph [0009] of Shiota '181 notes that it has been "practically impossible" to use activated carbon as a catalyst for conventional wet oxidation because of problems with combustions of the activated carbon and problems with its short effective life as a catalyst. In the pending Final Office Action, the Examiner repeated his argument that paragraph [0063] suggests the element of "adding a peroxide solution in the presence of an activated carbon catalyst."

Applicant points out, however, that paragraph [0063] of Shiota '181 addresses preparation of a catalyst, not use of a catalyst. The distinction is important, because the step with the peroxide is a precursor step prior to use of the catalyst. Paragraph [0070] of Shiota '181 recites a further step in the preparation of the catalyst as heat treating. Peroxides are thermodynamically unstable, and heat treating the temperatures discussed in Shiota '181 cause rapid removal of the peroxide solution. That is, there is no peroxide present when the catalyst is used (brought into contact with a liquid containing contaminants) and also, at the temperatures discussed in Shiota '181, there would be no solution present, peroxide or otherwise, as they would have evaporated. Further, the material properties of the examples in Shiota '181 buttress this point, as they recite the use of "solid type pellet" catalysts, which inherently would not contain a peroxide solution as required by claim 13. (See all of the Examples and Comparative Examples of Shiota '181).

Moreover, Shiota '181 teaches the use of a catalyst formed from activated carbon in combination with two metals, including transition metals. (See, for example, the list of metals recited in claim 1 of Shiota '181). However, as noted above, peroxides are thermodynamically unstable. Metals, especially transition metals, are well known to

catalyze and remove peroxides. Therefore, the inclusion of such metals as part of a catalyst inherently would lead one of ordinary skill in the art to believe that a peroxide solution is not present in such catalysts.

Based on the clear language of Shiota '181 and the properties inherent in the described catalyst materials of Shiota '181, Applicant asserts that Shiota '181 expressly teaches away from Applicant's claimed invention.

Moreover, nothing in Ding '283 cures the deficiencies of Shiota '181. Ding '283 merely shows an activated carbon in a catalyst for conversion of synthesis gas to diesel fuel. Ding '283 is not used for removing organic and inorganic contaminants from an aqueous liquid. Jasim '528 also fails to cure the deficiencies of Shiota '181, and adds the undesirable *Fenton's agent* as noted above.

As such, claim 13 is indeed patentable over the asserted references. And, because claims 14 and 17-18 depends from claim 13, claims 14 and 17-18 are allowable by virtue of dependency as well as for its additional recitations. Applicant respectfully requests that this rejection be withdrawn.

4. Rejection of Claims 11-12 Under §103(a).

Claims 11 and 12 stand rejected under 35 U.S.C. §103(a), as allegedly being unpatentable over Mamontov '961 in view of Shiota '181. Applicant respectfully traverses this rejection.

In particular, claims 11-12 depend from claim 9 which is allowable over Mamontov '961 in view of Shiota '181 for the reasons discussed above. And, nothing in Shiota '181 cures the deficiencies of Mamontov '961 in view of Shiota '181. Claim 11 recites language similar to independent claim 13, and is therefore distinguishable over Shiota '181 for the reasons discussed above, as well. Applicant respectfully requests that the rejections be withdrawn and the claims be allowed.

5. Declaration Under §1.132.

A Declaration by the Inventor, under 37 CFR §1.132, is being filed concurrently with this Supplemental Amendment. Applicant requests the immediate consideration of the Declaration.

### Conclusion

Having addressed each of the foregoing rejections, it is respectfully submitted that a full and complete response has been made to the outstanding Office Action and, as such, the application is in condition for allowance. Notice to that effect is respectfully requested.

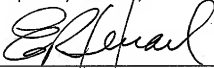
If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

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Respectfully Submitted,

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